

REMARKS/ARGUMENTS

Claims 1-11 and new claims 29-38 are currently pending in the present patent application, with claims 12-28 having been cancelled through the above claim amendments.

In the Office Action, the Examiner objected to claims 2-5 but indicated these claims were allowable if properly rewritten in independent form. Claims 7-11 were also indicated as allowable if properly rewritten in independent form and to overcome an antecedent basis rejection under the second paragraph of 35 U.S.C. § 112. Claims 2-11 have been properly amended and are now in condition for allowance.

In the Office Action, the Examiner rejected claims 1 and 6 as being anticipated by 35 U.S.C. § 102(b) alternately by U.S. Patent No. 6,446,578 to Irwin ("Irwin"), U.S. Patent No. 6,443,164 to Parker *et al.* ("Parker"), and U.S. Patent No. 6,302,058 to Dahl *et al.* ("Dahl"). See Sections 5-7 of the Office Action.

New claim 29 recites an animal washing system including an injector subsystem including a water input port adapted to receive water and a shampoo port adapted to receive shampoo. The injection subsystem is operable to generate a water-shampoo mixture and provide this mixture at an injector output port. An aeration subsystem includes an aeration input port coupled to the injector output port to receive the water-shampoo mixture, an aeration output port, and an aeration media adapted to receive pressurized air. The aeration media is positioned between the aeration input and output ports to aerate a flow of the water-shampoo mixture and thereby generate an aerated-water-shampoo mixture having desired foaming characteristics that is provided at the aeration output port.

The Dahl patent relates to an apparatus for producing a foam bovine teat dip as illustrated in Figure 1. Foam is created in this system by passing an air and disinfectant surfactant mixture from a tank 50 through a flow and line mixer 38 to a cup 12 adjacent the teat A. Compressed air is supplied through an intake valve 62 of the tank 50 and fed into space 64 of the tank. The compressed air compresses surfactant solution in the tank 50 into an inlet 68 of a liquid lifting pipe 66. The

compressed air in the space 64 in the tank 50 also enters four orifices 74 in the listing type 66 where it mixes with the surfactant in the listing type. See column 3, lines 9-12. This error and surfactant flows through the line 38 into the cup 12 where the mixture depressurizes and expands to produce a desired foam consistency. See column 3, lines 9-22.

Dahl does not teach or suggest an aeration media positioned between an aeration input port and an output port to aerate a flow of water-shampoo mixture (*i.e.*, surfactant solution) and thereby generate an aerated-water-shampoo mixture having desired foaming characteristics that is provided at the aeration output port. No such aeration media is disclosed or suggested in the flow path of the surfactant in Dahl. The four orifices 74 are not an aeration media is positioned between the aeration input and output ports to aerate a flow of the water-shampoo mixture and thereby generate an aerated-water-shampoo mixture having desired foaming characteristics. Dahl's system uses pressurized surfactant in the tank 50 that is forced through a manual on/off valve 22 (see Figure 2). Upon release of the surfactant-air mixture into the cup 12 the mixture depressurizes and expands to produce the desired foam consistency. In Dahl there is no flow of air into an aeration media in the path of surfactant (water-shampoo) mixture at the point of foam creation.

With the animal washing system of claim 29, depending upon the aeration media's filtering size bubbles as small as one micron in diameter can be generated in large volume. The use of such an aeration media enables high shampoo or surfactant efficiency. The bubble's large surface area relative to the bubble's volume enables dramatically less surfactant to be used with the animal washing system of claim 29 versus that of Dahl. Numerous micron size bubbles can occupy the same volume as fewer larger bubbles that are generated in the approach of Dahl via the much larger orifices 74 (see Figure 3). These micron size bubbles provide larger total bubble surface area which dramatically enhances surfactant efficiency.

The Irwin patent relates to an air spray device as shown in Figures 1 and 2. The device is adapted to spray a veterinarian preparation. In operation, a mixture source and compressed air source are coupled to threads 21 and 23, respectively. A

trigger 9 is depressed to allow compressed air to enter tube 19 and force its way down the tube and into a mixing chamber 33. See column 7, lines 39-49. The force of this air sucks mixture supplied via the source coupled to threads 21 and out of tube 17 into the mixing chamber 33, where this force carries or atomizes the mixture. *Id.* The Venturi effect is harnessed in the mixing chamber 33 to mix the preparation and air and/or for atomizing the mixture. See column 7, lines 50-57.

First, there is no teaching or suggestion of foam generation in Irwin. Accordingly, there is no teaching or suggestion of an aeration media positioned between the aeration input (23) and output (33) ports to aerate a flow of the water-shampoo mixture and thereby generate an aerated-water-shampoo mixture having desired foaming characteristics.

The Parker patent is directed to coating of a human body with tanning composition. As with Irwin, there is no teaching or suggestion of foam generation in Parker. As shown in Figure 9 of Parker, tanning composition is fed through a line 52 and pressurized air through a line 52 to a two-chamber manifold 54, where the air forces the composition out of nozzles 51 in the manifold. See column 9, lines 53-67. The pressurized air is used to push the tanning composition through the nozzles 51, which passively atomizes the tanning composition. There is no disclosure or suggestion of an aeration media positioned between aeration input and output ports to aerate a flow of water-shampoo mixture and thereby generate an aerated-water-shampoo mixture having desired foaming characteristics as recited in claim 29.

For all these reasons, new independent claim 29 is allowable over Dahl, Irwin, and Parker, whether taken singly or in combination. New claims 30-33 depend from claim 29 and are allowable for the same reasons as claim 29 and because of the additional limitations added by these dependent claims.

New independent claim 34 is allowable over Dahl, Irwin, and Parker, whether taken singly or in combination, for reasons similar to those discussed above with regard to claim 29. New claims 35-38 depend from claim 34 and are allowable for the same reasons as claim 34 and because of the additional limitations added by these dependent claims.

The present patent application is in condition for allowance. Favorable consideration and a Notice of Allowance are respectfully requested. **Should the Examiner have any further questions about the application, Applicant respectfully requests the Examiner to contact the undersigned attorney at (425) 455-5575 to arrange for a telephone interview to discuss the outstanding issues.** If the need for any fee in addition to any fee paid with this response is found, for any reason or at any point during the prosecution of this application, kindly consider this a petition therefore and charge any necessary fees to Deposit Account 07-1897.

Respectfully submitted,

GRAYBEAL JACKSON HALEY LLP

A handwritten signature in black ink, reading "Paul F. Rusyn". The signature is fluid and cursive, with the first name "Paul" being the most prominent.

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